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I, ANNA MAIJA EVERETT, ACTING TEAM LEADER EXAMINATION SUPPORT & SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. PQ 0818 for a patent by PETER ERIC EVANS filed on 07 June 1999.



WITNESS my hand this  
Twentieth day of June 2000

ANNA MAIJA EVERETT  
ACTING TEAM LEADER  
EXAMINATION SUPPORT & SALES

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**PETER ERIC EVANS**

**AUSTRALIA**  
Patents Act 1990

**PROVISIONAL SPECIFICATION FOR THE INVENTION ENTITLED:**

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**ANCHORING SYSTEM**

The invention is described in the following statement:-

TITLE:      "ANCHORING SYSTEM"

The present invention relates to a traffic safety device and anchoring system for portable barricades or barriers, portable delineators, road bollards and the like.

A conventional portable barricade or barrier comprises an elongate board or plank, horizontally disposed on one elongate side edge thereof, supported at either end by a trestle or other support frame at a pre-determined height above ground level. Often there is a need to anchor the support frames to the ground to provide stability in windy or gusty conditions, or to make the barrier more stable against accidental movement or the like. Traditionally this has been achieved by the use of sand bags or concrete blocks to hold the support frames in place, but such usage can be inconvenient or cause occupational health and safety issues resulting from road maintenance personnel being required to lift heavy sand bags or concrete blocks from a central storage area to the intended barrier site, or their acting as a solid projectile when impacted by a vehicle.

It is an object of the present invention to provide an improved anchoring system for portable barricades or barriers or the like, which goes at least some way towards overcoming or at least minimising the prior art problems or limitations outlined above or for providing a clear alternative choice for potential users.

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It is another object of this invention to provide an improved anchoring system for portable bollards, barricades or barriers, or the like, which incorporates a water reservoir as an anchoring means, which can be emptied or filled in situ.

It is a further object of this invention to provide an improved anchoring system of the type described above, which can be adapted for use as a guide post, marker post, bollard or the like, and which can be used as a hazard marker.

It is yet another object of this invention to provide an improved anchoring system of the type described above which is environmentally friendly and which avoids potential environmental pollution from decomposing sand-filled hessian bags.

It is yet a further object of this invention to provide a versatile anchoring system for portable barricades or barriers, or the like, which is relatively simple in construction and relatively inexpensive to manufacture.

These and other objects of this invention will become more apparent from the following descriptions and the drawings.

According to one aspect of the present invention there is provided an anchoring system for portable barricades or barriers or the like, comprising a base portion having an outer housing defining a fluid-filled cavity space therein, said base portion being adapted to be attachable to or to straddle a part of a conventional portable barricade support frame or trestle to prevent or to restrict relative movement of solid support frame or trestle.

Optionally, the base portion is adapted to receive and to retain a vertical post member at its upper end for use as a bollard or stanchion, or the like.

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The invention provides a water-filled vessel to anchor or weigh down barricade trestles, such as "A" frames and barrier boards, thus preventing them from turning over in wind, traffic generated wind gusts or traffic. An addition to this concept is the ability to fit a bollard to the vessel to make it a stanchion in its own right.

The invention will now be further described with reference to the accompanying drawings (two sheets) relating to one possible non-limiting embodiment of the invention.

According to this embodiment, the anchoring system comprises a truncated inverted V-shaped vessel having a cavity space therein to contain a quantity of water to provide anchorage weight to the device. Ideally, the vessel is made from UPVC material with a volume of up to 20 litres. It includes a cap for the inlet and outlet of water or other fluid.

The inverted V-shape is adapted to straddle the lower horizontal cross bar of an A-shaped barricade trestle.

A vertical post or bollard member is adapted for attachment to the upper truncated end of the vessel, preferably by means of a bayonet type fit between the vessel and the vertical post. The post may include reflective tape as a safety measure for night-time use, and include an identifying logo or other indicia. The upper end of the post includes a horizontally-extending slot adapted to receive either a single or dual barrier board or the adjacent overlapping ends of horizontally extending barrier boards.

Preferably, the bottom, middle and upper end of the post is adapted to receive a rope or chain when same is used as the barrier. Optionally, the upper end of the post may incorporate a warning light, preferably a solar rechargeable light with the post incorporating rechargeable battery means, and photoelectric cell means for automatic on/off switching between day and night. The preferred form of lighting is a LED light or other low energy light means.

This product has many advantages over these traditional methods, the most important being weight and occupational health and safety issues. The anchor can be filled up on site by a water truck negating the need for heavy bags or blocks to be carted from a central storage point to the site. This will have substantial benefits on the employees, eliminating lifting and back pain. It also eliminates the need to fill bags with sand on site, and the need for manual labour for this purpose.

The anchor also has an added advantage over sand bags or concrete blocks in that a guide post, marker post or bollard can be inserted in the specially designed cavity thus the anchor can also become a hazard marker.

Once the anchor's duties have ceased, it can easily be emptied by removing the cap and letting the water run onto the ground or into the gutter for disposal. This presents many advantages over traditional methods in that no sand or decomposing bags pollute the environment.

Ideally, the components of the anchor means are moulded from UV stable plastics materials, including UPVC, HDPE and polycarbonates, in any colour according to end-user or safety requirements.

Although an exemplary embodiment of the present invention has been shown and described, it will be apparent to those having ordinary skill in the art that a number of changes, modifications or alternations to the invention described herein may be made, none of which depart from the spirit of the present invention. All such changes, modifications, and alternations should therefore be seen as being within the scope of the present invention.

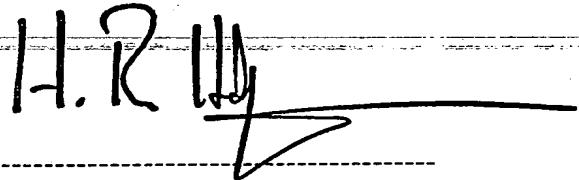
It should be appreciated that the present invention provides a substantial advance in anchoring means for portable barriers or barricades, or the like, providing all of the herein-described advantages without incurring any relative disadvantages.

Dated this 7<sup>th</sup> day of June, 1999.

PETER ERIC EVANS

Patent Attorneys for the Applicant  
H R HODGKINSON & CO.

By:

A handwritten signature in black ink, appearing to read "H. R. Myllymaki", is written over a horizontal line. Below the signature, another horizontal line is present.

Registered Patent Attorney

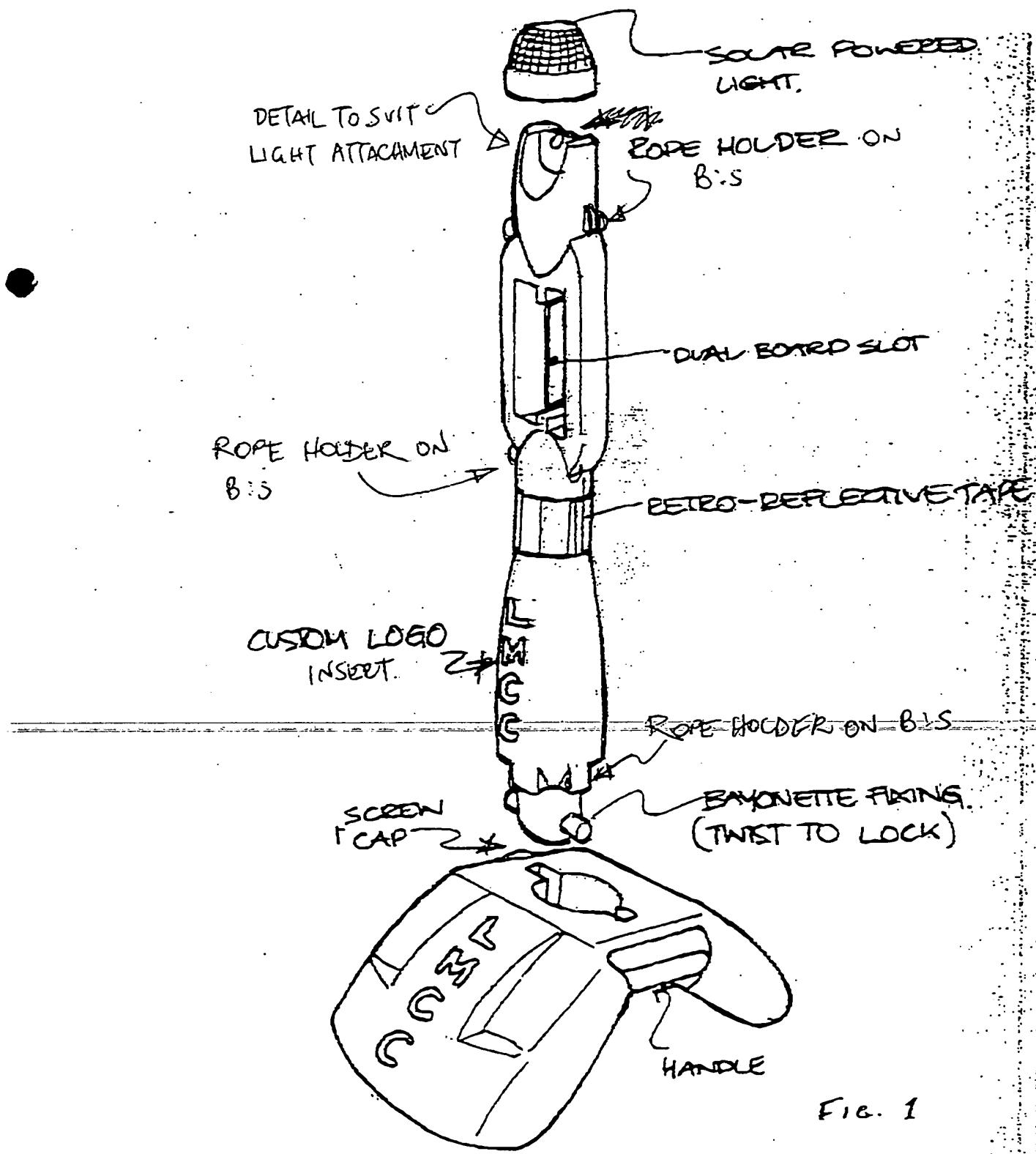
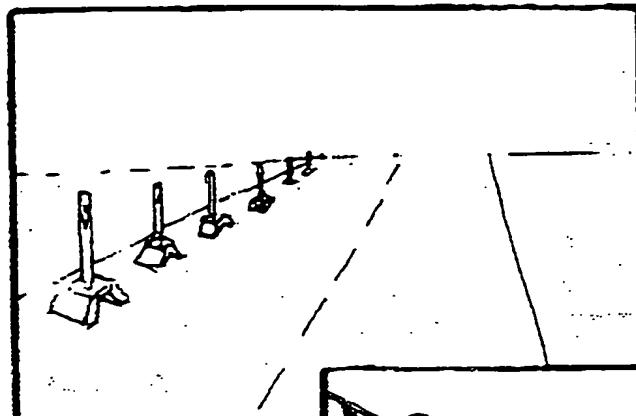
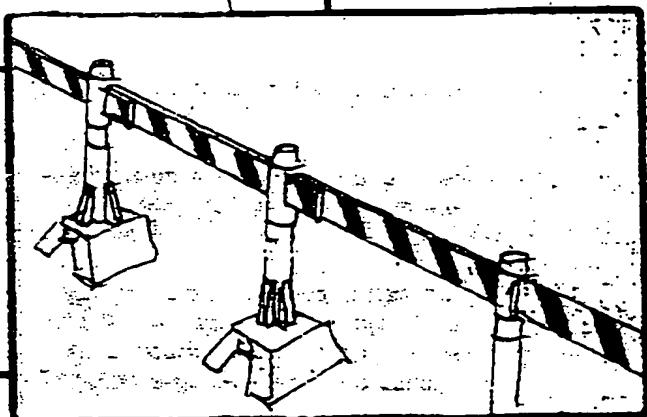


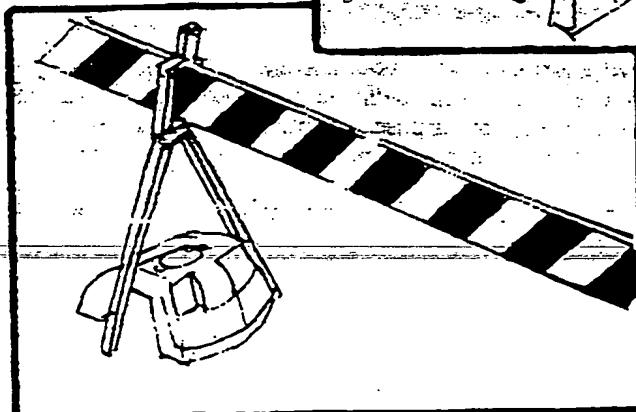
FIG. 1



AS STANCHION / BOLLARD



AS ROAD BOLLARD  
OR BARRIER



ANCHOR DEVICE

FIG. 2